

67,200-1191  
2003-0639

#### Abstract of the Disclosure

[0044] An improved water purification system including a high-efficiency reverse osmosis (HERO) system and a base dosing system for rapidly raising the pH of wastewater treated in the system. The invention includes an ion exchange unit for initially removing positive and negative ions from the wastewater. A high-efficiency reverse osmosis (HERO) system is provided downstream of the ion exchange unit for further removing ions from the wastewater. A base dosing system is provided between the ion exchange unit and the HERO system for dosing a base into and rapidly raising the pH of the wastewater as the wastewater flows from the ion exchange unit into the HERO system.